

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A47G 29/12, B65D 91/00	A1	(11) International Publication Number: WO 97/43935 (43) International Publication Date: 27 November 1997 (27.11.97)
---	----	--

(21) International Application Number: PCT/AU97/00309
(22) International Filing Date: 21 May 1997 (21.05.97)

(30) Priority Data:
PO 0016 23 May 1996 (23.05.96) AU

(71)(72) Applicant and Inventor: LATEO, Mark, Henry [AU/AU];
P.O. Box 1585, Mackay, QLD 4740 (AU).

(74) Agent: PIZZEYS; Patent and Trade Mark Attorneys, Level 6,
444 Queen Street, Brisbane, QLD 4000 (AU).

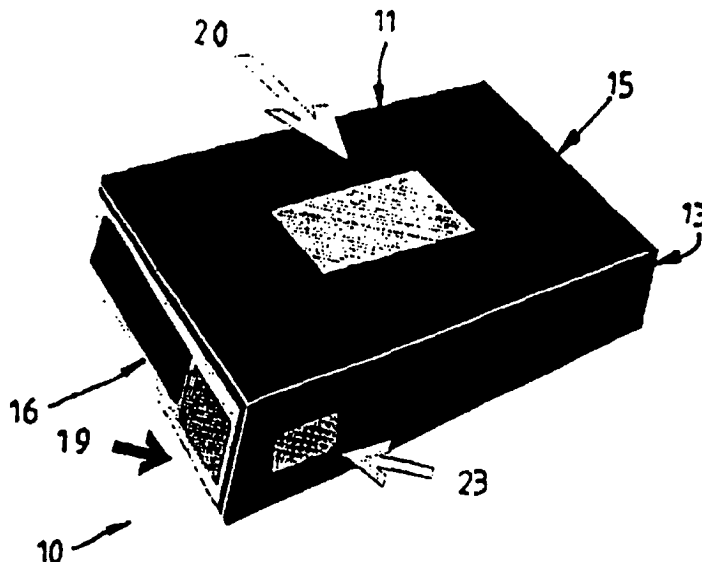
(81) Designated States: AU, JP, US, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
With international search report.

(54) Title: A MAIL BOX

(57) Abstract

A mail box (10) is provided for the secure retention of articles placed therein. The box (10) includes a compartment (14) for receiving mail; a front access door (15) permitting the mail to be deposited into the compartment (4), but inhibiting subsequent withdrawal therefrom; and a second rear lockable access door (16) which allows the mail to be retrieved. There are various means to maintain the mail securely in the box which include an internal baffle (17) adjacent the front access door (15); or a flap which blocks access to the compartment (4) when the front access door (15) is opened. The locking means for the second access door is microprocessor controlled (19). The mail box may also incorporate a communications module which is actuated to transmit a signal when the deposit of mail into the compartment (4) is sensed. The mail box (10) may also incorporate a security module which is adapted to be actuated if unauthorised tampering with articles in the mail box (10) is attempted. The security module and an associated alarm means may also be adapted to be operated remotely and independently of any unauthorised tampering with the mail box, thus functioning as a personal or other alarm for a resident in a dwelling who needs to summon attention.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

TITLE: A MAIL BOX

FIELD OF THE INVENTION

This invention relates to improvements to mail boxes of the type used for accepting and holding postal articles 5 or other similar materials.

BACKGROUND OF THE INVENTION

Mail boxes of many different designs are currently available. Often, the designs which are available lack a degree of security, such that tampering with, or theft 10 of, mail or other articles deposited into a mail box can result. Some mail boxes which have been proposed incorporate means to indicate the presence of, or the depositing of mail or other articles, into the mail box. However, these type of mail boxes have not gained 15 acceptance by householders. Generally, the design of mail boxes has not changed for a number of years other than cosmetic appearance changes. The non standard design of current mail boxes presents a poor aesthetic appearance. In addition, many mail boxes do not 20 effectively prevent the ingress of dust and moisture. Furthermore, many of the mail boxes that are available do not have sufficient capacity. With yet other mail boxes, corrosion problems and mechanical failure can occur.

SUMMARY OF THE INVENTION

The present invention aims to provide an improved mail box primarily but not exclusively for use by households for the receipt of letters, parcels or other similar
5 articles which overcomes or at least alleviates one or more of the above disadvantages. The present invention in one particular aspect aims to provide a mail box which provides enhanced security to articles deposited into the box. The present invention in a further preferred aspect
10 aims to provide a mail box in which the depositing or placement of mail or other articles into the box may be sensed. The present invention in yet a further aspect aims to provide a mail box which is tamper resistant.

Other objects and advantages of the invention will become
15 apparent from the following description.

DESCRIPTION OF THE INVENTION

According to a first aspect of the present invention, there is provided a box suitable for use as a mail box or the like, said box comprising:

- 20 a compartment for receiving mail or other articles;
- a first access door providing access to said compartment and permitting said mail or other articles to be deposited into said compartment, said mail or other articles when deposited into said

compartment being inaccessible through said first access door;

a second lockable access door; and

locking means for permitting selective unlocking of
5 said second access door to enable access to said compartment to enable removal of said mail or other articles therefrom.

In one form, the compartment may include an internal baffle adjacent the first access door which, when
10 articles are deposited into said compartment through the first access door, prevents access to those articles. Alternatively, the first access door may incorporate means which prevent access to the articles when the articles are deposited into the compartment. For
15 example, the first access door may be pivotally mounted and include a panel or flap which blocks access to the compartment when the first access door is opened.

The locking means for the second access door may include a microprocessor controlled locking means. A keypad may
20 be mounted to the rear of the mail box which is associated with the microprocessor whereby a correct code entered via the keypad will unlock the second access door to enable access to the mail in the compartment. The

second access door may be keyless and self lockable when closed.

Both access doors may be self closing when opened, for example, under the influence of return springs or counter 5 weights. The doors may be hingedly mounted for movement about a vertical axis or horizontal axis or may be in the nature of sliding doors.

The mail box may also incorporate a communications module which is actuated to transmit a signal when the deposit 10 of mail or other articles into the compartment is sensed. When this occurs a signal may be transmitted to a receiver, which may be located at a remote location, for example, within a dwelling. Such a receiver may incorporate indicating means to indicate that articles 15 have been deposited into the compartment. The indicating means may comprise an audible and/or visible indicating means, such as a light and a siren or alarm. For this purpose, a switch may be operated on opening the front door of the mail box to initiate transmission of a signal 20 for receipt by the receiver in the house. The indicating means is thus operated each time the front door of the mail box is opened to receive mail.

In an alternative or additional arrangement, the indicating means may be on the mail box to provide an 25 indication that mail or other articles have been

deposited into the compartment. The indicating means in this latter form may comprise a lamp which is actuated by means of a switch such as a micro switch within the mail box. Deposit of mail or other articles into the box will
5 cause actuation of the microswitch and current to be applied to the lamp to cause illumination thereof to indicate that the mail box requires emptying. When the mail or other articles are removed from the mail box, the weight being removed from the micro switch will cause the
10 switch to open and current to be removed from the lamp. The lamp may be an LED or any other form of display.

The mail box may also carry a solar panel which may generate a current for charging a battery or batteries providing power to the microprocessor control circuit and
15 communication module. Alternatively, the power can be 240 volts mains stepped down to 12 volts DC via a transformer. The transformer may be housed within the mail box or located externally, for example, at a remote location adjacent any convenient mains power supply.

20 The microprocessor controlled locking means may incorporate or be connected to a security module which is adapted to be actuated if unauthorised tampering with articles in the mail box is attempted, for example, if the incorrect code is entered into the keypad a number of
25 consecutive times. The security module may also be actuated in the event of attempted forced entry into the

mail box. The security module may be associated with suitable alarm means which is operated by the security module when tampering with the mail box or contents thereof is attempted as above. The alarm means may
5 comprise an audible and/or visible alarm and may be arranged externally on the mail box or at a remote location, for example, in a dwelling.

The security module and associated alarm means may also be adapted to be operated remotely and independently of
10 any unauthorised tampering with the mail box. It can thus function as a personal or other alarm for a resident in a dwelling who needs to summon attention. By initiating the alarm, the audible and/or visible alarm on the mail box will be activated, thus identifying the
15 dwelling that requires assistance.

The mail box may be of rectangular form and for anti-corrosion purposes suitably constructed of stainless steel. Alternatively, the mail box may be of any other shape. The dimensions of the box may, of course, be
20 varied to suit the application. The electronic control circuit may be supported on the underside of the box or within the box. The first access door preferably comprises a door at the front of the box and the second access door preferably comprises a door at the rear of
25 the box. The front access door may be provided with an internal baffle to make removal of mail via the front

door difficult. The baffle may protrude downwardly from the slot in the front door through which mail may be inserted. Suitably, tamper resistant screws may be provided on an appropriate panel of the communication 5 and/or security modules to allow access to change or recharge the battery and maintenance but to prevent tampering with the box.

SPECIFIC EXAMPLES

In order that the invention may be more readily 10 understood and put into practical effect, reference will now be made to the accompanying drawings which illustrate preferred embodiments of the invention and wherein:-

Fig. 1 is a schematic perspective view from the rear of a mail box constructed according to the present 15 invention;

Fig. 2 is a rear view of the mail box of Fig. 1;

Fig. 3 is a sectional view of the mail box of Figs. 1 and 2; and

Figs. 4 to 7 illustrate in front, perspective, cross 20 sectional and rear views an alternative embodiment of a mail box constructed according to the present invention.

Referring to the drawings and firstly to Figs. 1 and 2, there is illustrated a mail box 10 which is of generally rectangular form and constructed of stainless steel or other corrosion resistant material and which is designed for use primarily in applications for receiving and holding mail or other postal articles, fliers or the like. The mail box 10 includes top and bottom walls 11 and 12 and opposite side walls 13 which define a hollow compartment 14 (see Fig. 3) for receiving articles deposited into the box 10. The box 10 incorporates a front access door 15 and a rear access door 16, the front access door 15 allowing for articles of mail or other similar products to be placed into the compartment 14. The compartment 14 may include a baffle 17 which prevents access to mail deposited into the compartment 14 via the front access door 15. Alternatively, the front access door 15 may include a flap (not shown) which, when the door 15 is opened, prevents access to mail or the compartment 14, but which permits materials to be placed into the compartment 17. Both the front and rear access doors 15 and 16 are preferably hingedly mounted and suitable seals are provided such that, when the access doors 15 and 16 are closed, the compartment 14 is substantially sealed from the outside atmosphere. In addition, both access doors may be arranged to be self closing. This may be achieved by the nature of the hinge mounting of the doors, for example, by hanging the doors for pivotal movement about an upper horizontal axis such

that, when released after opening, they will pivot to a closed position under the influence of gravity. Alternatively, the doors may be self closing under the influence of counter weights or return springs. The hinge for the doors may also be configured to effect self closing of the doors. The rear access door 16, preferably, is keyless and self locks when closed. A rear panel 18 of the box carries a keypad 19 associated with a microprocessor control circuit which controls, for example, a solenoid actuated lock for locking of the rear access door 16. The microprocessor control circuit preferably includes a memory which carries an individual code whereby the solenoid lock will only be released when the correct code is entered via the keypad 19. Power for the supply to the microprocessor circuit may be through a battery which may be a rechargeable battery, chargeable by means of a solar panel 20. The solar panel 20 may be supported on the upper wall 11 of the box 10. The microprocessor control circuit is located in a secure compartment 21 at the lower side of the box 10. The mail box 10 may additionally incorporate a security module connected into the microprocessor control circuit. The security module may be associated with an alarm such as a siren 22 mounted externally of the mail box 10. If opening of the rear access door 16 is attempted using the keypad 19 and an incorrect code, used a number of times in sequence, the security module will be activated to cause operation of the siren 22. The security module may

also be activated if unauthorised forced entry through the rear access door 16 is attempted. For this purpose, a switch may be associated with the rear access door 16 which is actuated if the door 16 is forced to cause 5 security module actuation. Operation of the switch is overridden if the correct code is entered into the keypad 19. The mail box 10 may additionally include means for sensing the deposit of mail into the box 10. Such sensing means may comprise a light sensor 23 mounted on 10 the baffle 17 which will sense the passage of articles past the baffle 17. Associated with the sensor 23 is a communications module connectable into the microprocessor control circuit. When the deposit of mail is sensed by the sensor 23, the communications module will be actuated 15 to cause a signal to be transmitted for receipt at a remote location, for example, in a house. A receiver at the remote location upon receipt of that signal will cause actuation of a signal such as a light signal or sound signal so as to indicate that mail has been 20 deposited into the compartment 14. As a further feature, the mail box 10 may support an infra-red sensor or other sensor 24 which senses movement in the vicinity of the mail box. The infra-red sensor 23 may be connected into the communication module, so as to indicate to persons 25 within a house or building that movement has been sensed adjacent to the mail box 10. The preferred material of construction of the mail box 10 is stainless steel to ensure maximum durability, especially in harsh

environments, such as marine environments. The box 10 may be painted in any colour and can therefore be available in aesthetically pleasing designs. All power for the control circuit and modules is achieved by using 5 a solar energy charged battery, charged from the solar panel 20 supported on the box 10. This arrangement thus allows for easy installation in any location without the need of external power supplies.

The mail box 10 of the invention may be used in any 10 situations where secure receipt and holding of mail is required. One particularly suitable application is in rural applications where a mail box may be located remotely from a house. Of course, the mail box may also be used in other applications, for example, the multiple 15 groupings associated with flats or units or in commercial situations, for example, associated with factories or offices. The mail box 10 may be of many different shapes and configurations as desired. For receipt of parcels or larger mail articles, the compartment 14 is increased in 20 size. Similarly, the doors 15 and 16 will be required to be of sufficient size to enable the articles to be deposited into the compartment 14. Additionally, the mail box 10 may incorporate any or all of the modules referred to above. Whilst a light sensing means has been 25 illustrated to indicate the deposit of mail into the compartment 14, other sensing means may be used for that

purpose, such as sensing means on the base of the compartment 14.

Referring now to Figs. 4 to 8, there is illustrated an alternative embodiment of mail box 30, of a rectangular form, which includes a recessed front panel 31 containing a mail slot 32 closed by a hinged flap 33 which opens when mail is inserted into the slot 32. The box 30 also includes a side cavity 34 to receive articles such as newspapers or the like which do not need the security of being held within the box 30. A baffle 35 extends downwardly at an angle of 45 degrees to guide deposited mail onto the base 36 of the box 30. The base 36 may be provided with a microswitch 37 which is actuated upon mail being deposited thereon. Actuation of the switch 37 will initiate operation of a transmitter as before which transmits a signal to a remote location for receipt by a receiver in a house or the like and thereby actuation of a visual and/or audible alarm. Actuation of the switch 37 may also cause illumination of a lamp 38 on the rear of the box 30 to provide a visual indication that mail has been received in the box 30. Access to the interior of the box 30 to allow for removal of mail therefrom is provided by a hinged rear door 39 which may be latched in position by a solenoid actuated lock 40. Release of the lock 40 may be achieved through a keypad 41 mounted on the rear door 39 which requires a correct code to be inserted to release the solenoid of the lock 40. The

door 39 may be mounted on a rear recessed panel 42 secured to the box 30 by tamper proof screws 43. As with the first embodiment, the box 30 supports a solar panel 44 for charging the battery 45 for supply of 5 current to the transmitter unit of the box 30 and other electrical equipment in and on the box 30.

Whilst the above have been given by way of illustrative embodiments of the invention, all such modifications and variations thereto as would be apparent to persons 10 skilled in the art are deemed to fall within the broad scope and ambit of the invention as defined in the following claims.

CLAIMS

1. A box suitable for use as a mail box or the like,
said box comprising:

a compartment for receiving mail or other articles;

- 5 a first access door providing access to said
compartment and permitting said mail or other
articles to be deposited into said compartment, said
mail or other articles when deposited into said
compartment being inaccessible through said first
10 access door;

a second lockable access door; and

- locking means for permitting selective unlocking of
said second access door to enable access to said
compartment to enable removal of said mail or other
15 articles therefrom.

2. A box as defined in claim 1, wherein said
compartment includes an internal baffle adjacent
said first access door such that, when said mail or
other articles are deposited into said compartment
20 through said first access door, access to said mail
or other articles is prevented.

3. A box as defined in claim 1, wherein said first access door incorporates means to prevent access to said mail or other articles after being deposited into said compartment.
5. 4. A box as defined in claim 3, wherein said first access door is pivotally mounted and includes a panel or flap which blocks access to said compartment when said first access door is opened.
5. A box as defined in any one of claims 1 to 4,
10 wherein said locking means for said second access door includes a microprocessor controlled locking means.
6. A box as defined in claim 5, wherein a keypad is mounted to the rear of said mail box and which is
15 associated with said microprocessor whereby a correct code entered via said keypad will unlock said second access door to enable access to said mail or other articles in said compartment.
7. A box as defined in any one of claims 1 to 6,
20 wherein said second access door is self lockable when closed.

8. A box as defined in any one of claims 1 to 7,
wherein said first access door and said second
access door are self closing when opened.
9. A box as defined in claim 8, wherein said self
5 closing is undertaken by the use of return springs
or counter weights.
10. A box as defined in any one of claims 1 to 9,
wherein said first access door and said second
access door are hingedly mounted for movement about
10 a vertical axis.
11. A box as defined in any one of claims 1 to 9,
wherein said first access door and said second
access door are hingedly mounted for movement about
a horizontal axis.
- 15 12. A box as defined in any one of claims 1 to 9,
wherein said first access door and said second
access door are each a sliding door.
13. A box as defined in any one of claims 1 to 12,
wherein a communications module is included which is
20 actuated to transmit a signal when deposit of said
mail or other articles into said compartment is
sensed.

14. A box as defined in claim 13, wherein said signal is transmitted to a receiver located remote from said box.
15. A box as defined in claim 14, wherein said receiver
5 includes indicating means to indicate that said mail or other articles have been deposited into said compartment.
16. A box as defined in claim 15, wherein said
10 indicating means comprises an audible indicating means.
17. A box as defined in claim 16, wherein said audible means is a siren or alarm.
18. A box as defined in claim 15, wherein said
15 indicating means comprises a visible indicating means.
19. A box as defined in claim 18, wherein said visible means is a light.
20. A box as defined in any one of claims 13 to 19,
20 wherein a switch is operated on opening said first access door to initiate transmission of said signal.

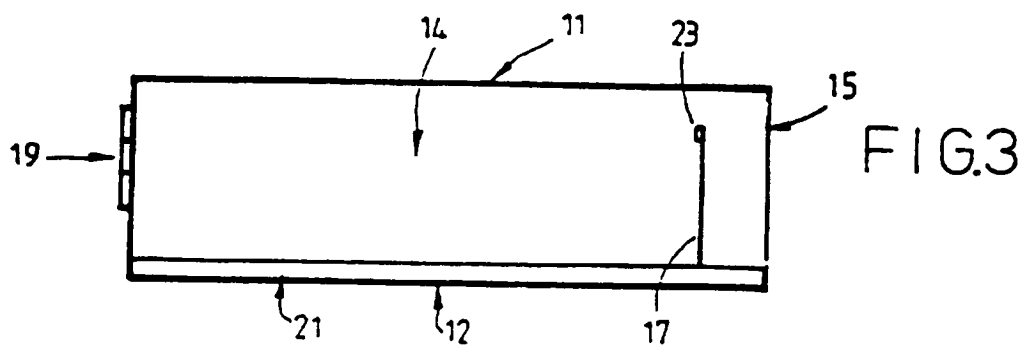
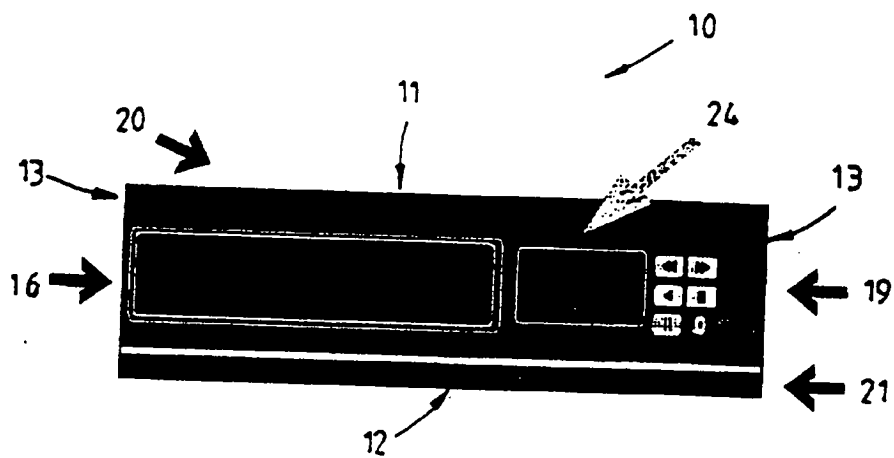
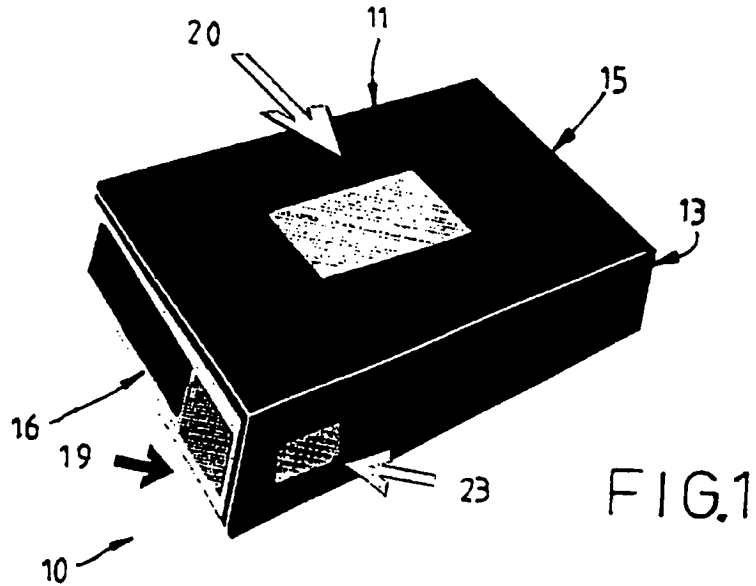
21. A box as defined in claim 19, wherein said compartment includes a switch which activates a light when said mail or other articles are deposited in said compartment and which deactivates said light when said mail or other articles are removed from said compartment.
22. A box as defined in any one of claims 5 to 21, wherein a solar panel is provided to generate a current for charging at least one battery for providing power to said microprocessor and said communications module.
23. A box as defined in any one of claims 5 to 21, wherein 240 volts mains power stepped down to 12 volts DC via a transformer is provided to power said microprocessor and said communications module.
24. A box as defined in claim 23, wherein said transformer is housed within said box.
25. A box as defined in claim 23, wherein said transformer is located externally of said box at a location remote from said box and adjacent a mains power supply.
26. A box as defined in any one of claims 1 to 25, wherein said locking means is incorporated in or

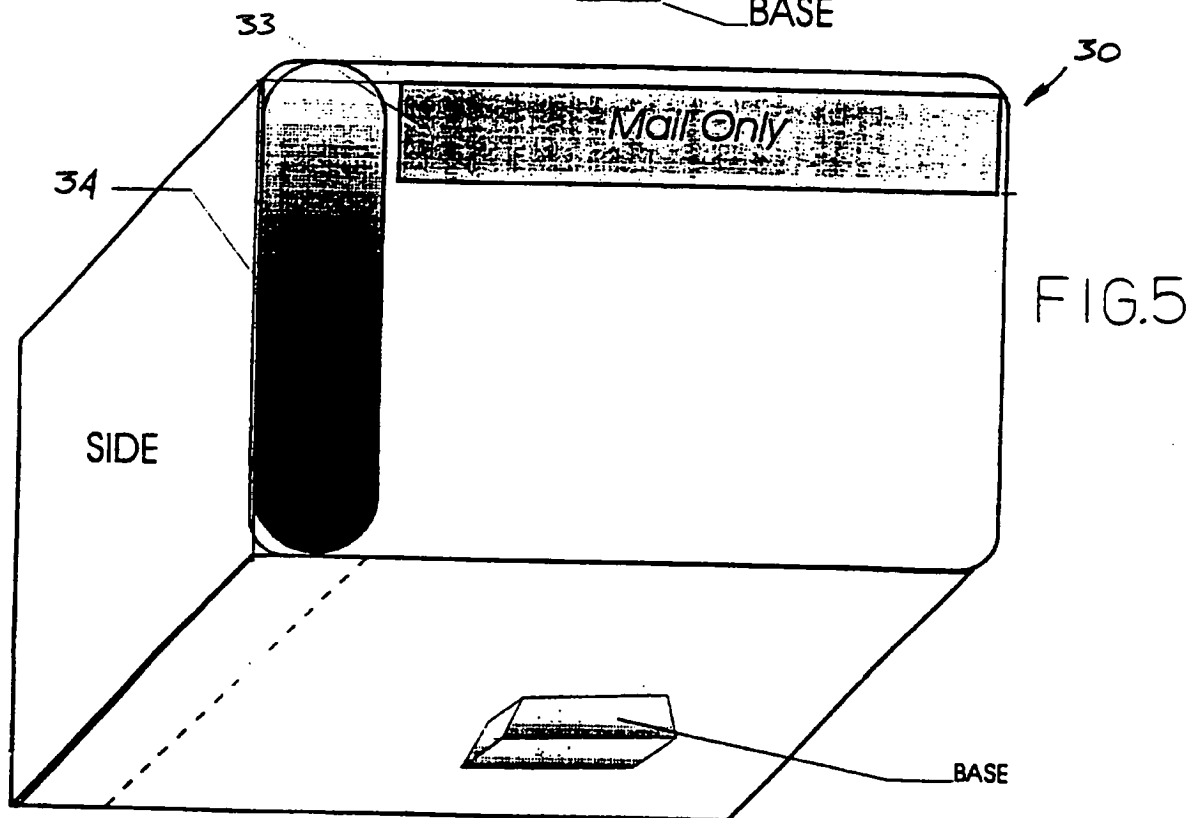
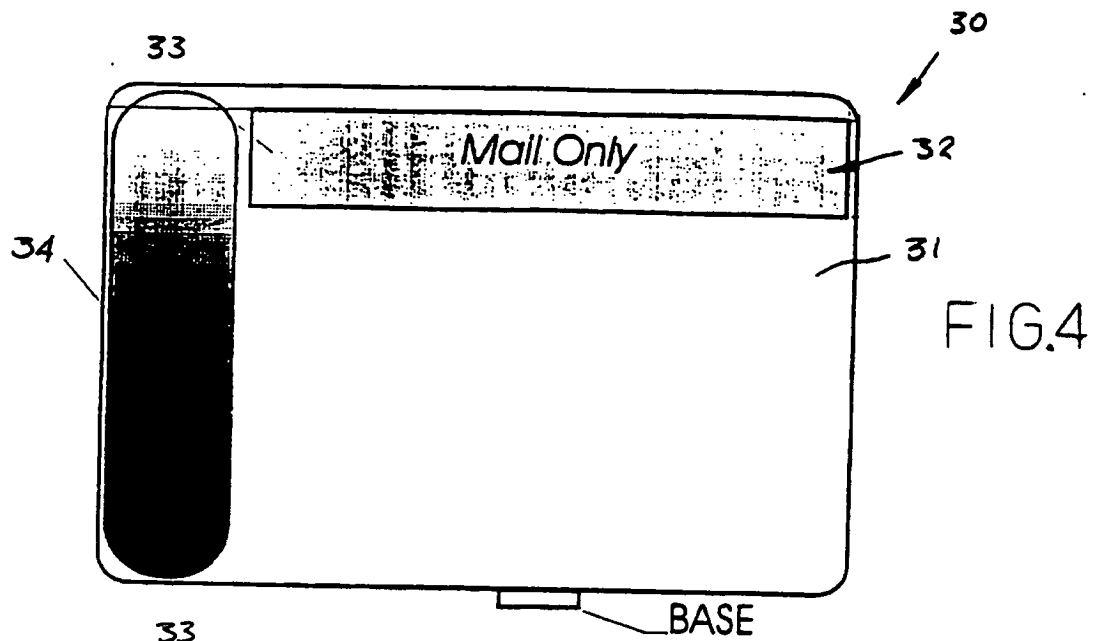
connected to a security module, said security module being adapted to be actuated if unauthorised removal of said mail or other articles from said compartment is attempted.

- 5 27. A box as defined in claim 26, wherein said security module is associated with an alarm means, said alarm means being operated by said security module when unauthorised removal of said mail or other articles from said compartment is attempted.
- 10 28. A box as defined in claim 27, wherein said alarm means comprises an audible and/or visible alarm, said alarm being positioned externally on said box or at a remote location.
- 15 29. A box as defined in claim 27 or claim 28, wherein said security module and said alarm means are further adapted to be actuated remotely and independently of any unauthorised removal of said mail or other articles from said compartment.
- 20 30. A box as defined in any one of claims 1 to 29, wherein said first access door is positioned at the front of said box and said second access door is positioned at the rear of said box.

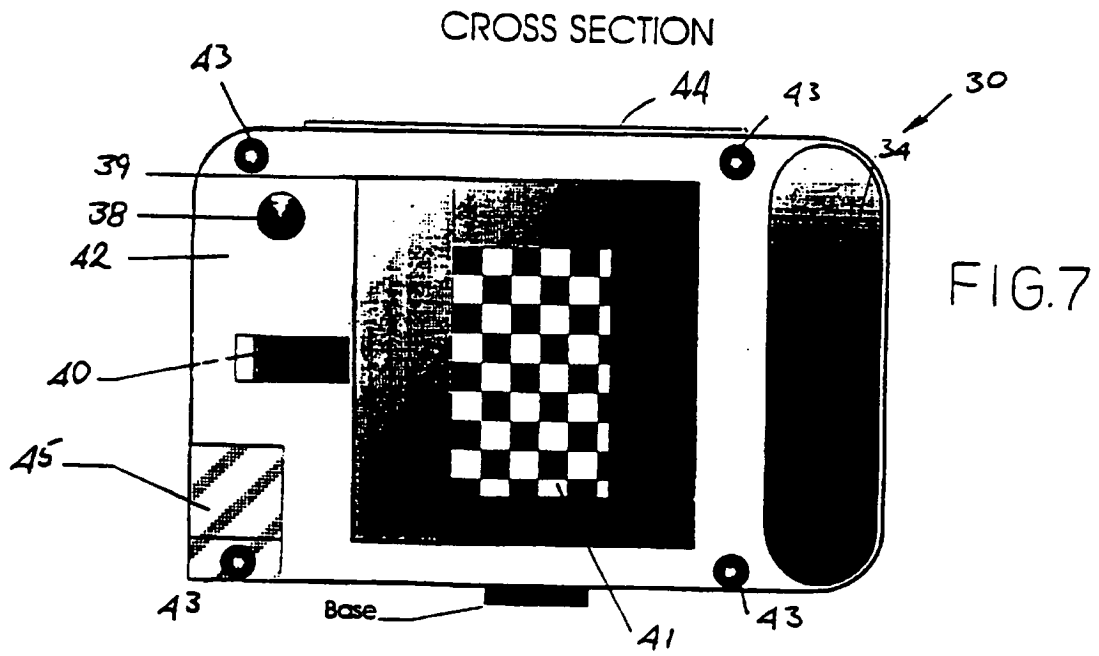
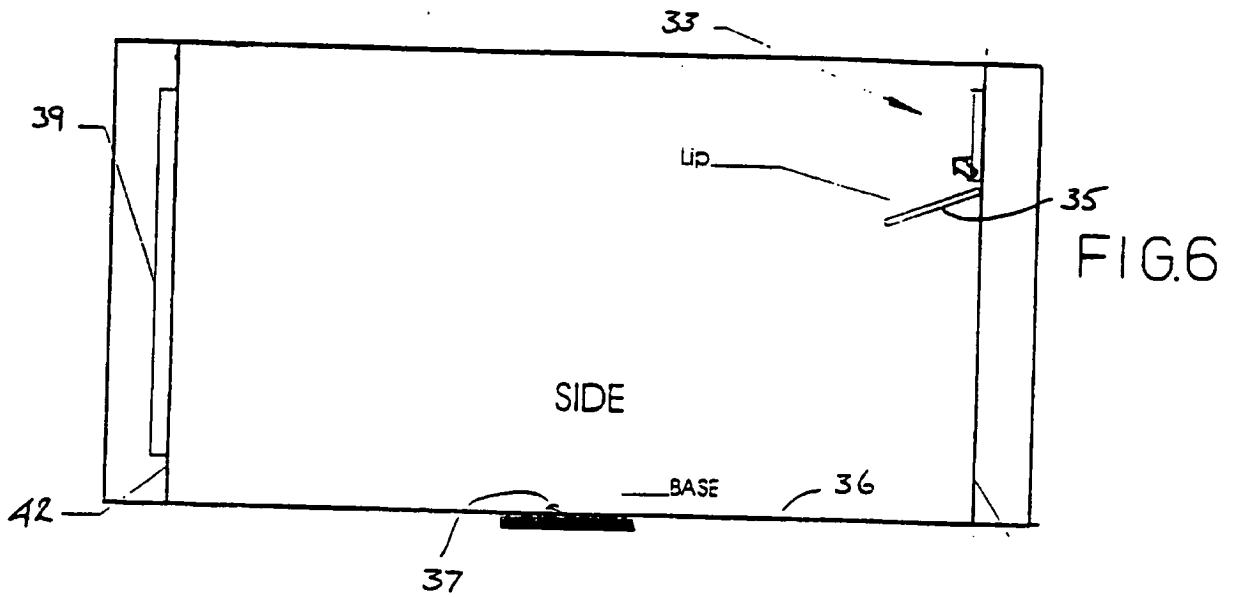
31. A box as defined in claim 30, wherein said first access door includes an internal baffle such that, when said mail or other articles are deposited into said compartment through said first access door, access to said mail or other articles via said first access door is prevented.
32. A box as defined in claim 31, wherein said baffle protrudes downwardly from a slot in said first access door through which said mail or other articles are inserted.

1 / 3





3/3



INTERNATIONAL SEARCH REPORT

International Application No.

PCT/AU 97/00309

A. CLASSIFICATION OF SUBJECT MATTER		
Int Cl ^B : A47G 29/12, B65D 91/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) IPC A47G 29/12, 29/122, 29/124, 29/16; B65D 91/00		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DERWENT		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	AU 64716/94 (HILCOM LIMITED) 22 December 1994 whole specification	1-3,7-12,30-32 5,6,13-21
X	US 3802619 (LEIGH PRODUCTS INC et al) 9 April 1974 see fig 3	1-4,7-13
Y	FR 2667495 (FRANCEY, Roger) 10 April 1992 item 11	5,6
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 16 June 1997		Date of mailing of the international search report 25 JUN 1997
Name and mailing address of the ISA/AU AUSTRALIAN INDUSTRIAL PROPERTY ORGANISATION PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No.: (06) 285 3929		Authorized officer DAVID LOGAN Telephone No.: (06) 283 2386

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/AU 97/00309

C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 66409/65 (HALLSWORTH & MAJOR) 11 May 1967 page 5, paragraph 2	1,13-20
Y	DT 2432069 (HAMPELE, Gerald) 22 January 1976 see abstract	13-21
Y	AU 22482/95 (SURMAN, Robert) 02 November 1995 see abstract	22
Y	FR 2222861 (HARTZ, Maurice) 22 November 1974 see abstract	23-25
Y	US 4965551 (BOX) 23 October 1990 page 2, line 42-53	26-29
X	AU 32006/68 (413594) (KONSTANDAKOS, Nichos) 05 February 1970 the whole specification	1,13-21
X	AU 47633/90 (633532) (SCHUURMANS, Adrianus) the whole specification	1,3,7-12

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/AU 97/00309

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
see continuation for text

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/AU 97/00309

Box II

Claim 1 defines a box suitable for use as a mail box comprising

- a compartment for receiving mail
- a first access door allowing the deposit of mail, the door preventing access to mail in the compartment
- a second lockable access door
- locking means associated with the second door.

This claim however is not novel in light of

- | | | |
|-----------------|-------------------------|----------|
| (a) AU 64716/94 | HILCOM LIMITED | 22/12/94 |
| (b) US 3802619 | LEIGH PRODUCTS INC et a | 09/04/74 |
| (c) AU 66409/65 | HALLSWORTH & MAJOR | 11/05/67 |
| (d) AU 32006/68 | KONSTANDALOS | 05/02/70 |
| (e) AU 47633/90 | SCHUURMANS | 05/07/90 |

The dependent claims 2-32 have been grouped together by their special technical feature. These are illustrated as follows;

- | | | |
|---------------|---|--|
| Claim 2 | - | baffle |
| Claims 3-4 | - | means for preventing access |
| Claims 5-6 | - | microprocessor controlled locking means |
| Claims 7-9 | - | self closing doors |
| Claims 10-12 | - | the movement of the doors |
| Claims 113-21 | - | communication means to indicate the arrival of mail |
| Claims 22-23 | - | depended on claim 5, dealing with powering of the microprocessor |
| Claims 26-29 | - | security means associated with the locking means |
| Claims 30-32 | - | the physical layout of the box ie the doors and the baffle |

Since the independent claim 1 is not novel and depended claims 2-32 deal with different technical features it is considered that there is a lack of unity a posteriori. There would appear to be at least seven inventions in the application.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No.
PCT/AU 97/00309

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report			Patent Family Member		
AU	64716/94	GB	2279107		
US	3802619	NONE			
FR	2667495	NONE			
AU	66409/65	NONE			
DE	2432069	NONE			
AU	22482/95	WO	9529109	US	5460325
FR	2222861	NONE			
US	4965551	NONE			
AU	32006/68	NONE			
AU	47633/90	NONE			
					END OF ANNEX